

**REMARKS**

*Status of the Claims*

Claims 1-26 are in the application.

Claims 1-26 have been made subject to a restriction requirement.

Upon entry of this reply, claims 1-26 will be pending.

*Election/Restriction Requirement*

The Office has asserted that the application contains five different groups of inventions which are not linked as to form a single inventive general concept under PCT Rule 13.1. The Office has required Applicant to elect a single invention from the following groups:

Group I, claims 1-11, drawn to methods, systems, and a computer program for identifying a micro RNA recognition-element;

Group II, claims 12-22, drawn to methods, systems, and a computer program for identifying a micro RNA recognition-element;

Group III, claims 23-24, drawn to recombinant nucleic acid molecules encoding recognition elements;

Group IV, claim 25, drawn to microRNA; and

Group V, claim 26, drawn to methods of down-regulating expression of an mRNA.

(Office Action, page 2). Applicants respectfully traverse this requirement because the Office has failed to employ the correct analysis in determining whether the inventions contain a special technical relationship.

PCT Rule 13.1 states that:

Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The Office has invoked PCT Rule 13.2, Annex B, Section (f), to apply the restriction requirement. PCT Rule 13.2, Annex B, Section (f) involves unity of invention rejections where the claims recite alternative forms of chemical compounds. Claims 24-26 recite a genus of microRNA compounds but they do not recite alternative species of compounds that would warrant the application of PCT Rule 13.2, Annex B, Section (f). The inventions, at least with respect to Groups I, II, III, and V share the use of the computer algorithm, which when used, predicts a microRNA target. The microRNA molecules of claim 25 are the result of the computer algorithm of Group II. The method of claim 26 uses the computer algorithm of Group II.

While the groups of invention may be patently distinct, the claimed inventions are sufficiently related insomuch as the claims recite the use of a computer algorithm to predict a microRNA target. The analysis employed to issue the restriction requirement is improper and the restriction requirement should be withdrawn. At the very least, claims of Groups II, IV, and V should be joined as incorporating the computer algorithm described in claims 12-22.

Nevertheless, in accordance with 37 CFR §§ 1.143 and 1.146, Applicants hereby provisionally elect Group II encompassed by claims 12-22. Claims 12-22, 25, and 26 read on the elected invention.

***Conclusion***

Claims 1-26 are in condition for allowance. A notice of allowance is earnestly solicited. Applicants invite the Examiner to contact the undersigned at 610.640.7852 to clarify any unresolved issues raised by this response.

The Commissioner is hereby authorized to charge any deficiencies of fees and credit of any overpayments to Deposit Account No. 50-0436.

Respectfully submitted,

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